

- D. If base material is not specified as a pay item, the cost shall be included in the cost of the Sidewalk or Driveway.

This payment will be full compensation for all labor, equipment, and materials necessary to complete the work.

SECTION 752

FENCING – INSTALLATION AND RESETTING

752.01 DESCRIPTION.

This work consists of constructing fences and gates including the removal of existing fences and resetting of fences in the locations shown on the Plans or as directed by the Engineer.

752.02 MATERIALS.

Materials shall meet the following:

Item	Section
Posts	860
Barbed Wire Fence	860.02
Woven Wire Fence	860.02 B
Chain Link Fence	860.01
Concrete Class AE	802

752.03 CONSTRUCTION REQUIREMENTS.

- A. **General.** The fence shall be erected on the Right of Way parallel to and one foot from the Right of Way line.

The bottom of the fence shall follow the contour of the ground except at grade depressions such as stream crossings, drainage ditches, or other locations where it is not practical. At such locations the fence shall span the depression, and the space below the bottom wire shall be closed with additional wire or fabric and posts of regular or extra length as acceptable to the Engineer.

- B. **Installing Line Posts.** All posts shall be placed as close to the intervals shown as conditions allow. At sharp changes in grade, extra posts shall be installed to maintain the wire or chain link the proper distance from the ground. All posts shall be aligned and plumb.

Posts shall be placed to the required depth and plumb. In unusual locations where the slope of the terrain makes it impracticable to set the posts plumb, the posts shall be set as directed by the Engineer.

Posts for chain link fence shall be set in concrete. Posts for barbed wire fence and woven wire fence shall be driven or set in holes. If soil conditions prevent proper driving of posts, a pilot hole may be drilled which shall be no larger than the diameter of the post minus one inch.

When posts are set in holes, the holes shall be large enough to allow proper tamping. Wood posts shall be set with the large end down. Backfill shall be placed in layers not to exceed 6 inches in loose depth; and it shall be compacted. When completed, all the excavated earth shall be used and the backfill shall be crowned slightly.

When solid rock is encountered, holes shall be drilled a minimum depth of 12 inches into the rock or to the required embedment depth of the post, whichever is less. The post shall be cut to provide the required height above the ground. The post shall then be grouted into the rock with a grout consisting of one part cement and 2 parts sand.

Posts damaged during handling or driving shall be replaced at the Contractor's expense.

Wood posts shall be grounded at every tenth post using a 9 gauge wire the full length of the post. The wire shall be stapled to the post before driving and placed so each line wire shall be stapled to it.

- C. **Corner and Brace Assemblies.** A horizontal angle in the fence having a deflection of more than 15° shall be considered a corner and shall be braced accordingly. Brace assemblies may be required at other locations if directed by the Engineer.

Wood corner and brace posts shall be installed according to Section 752.03 B.

Steel corner and brace posts, when not set in concrete, shall be driven unless the posts are provided with anchors and brace plates. In this case the posts shall be set in holes and backfilled in the same manner as wood posts.

- D. **Installing Fence Wire.** All fence wire shall be pulled tight with hand stretchers either of the double block or lever type. The pulling and tightening of fence wire with tractors or trucks shall not be permitted.

1. **Barbed Wire and Woven Wire.** Wire shall not be stretched around corners but shall be cut and tied securely to each corner or brace post.

In erecting the fence any combination of splices, both factory and field, shall not exceed 3 in one spool of wire.

If a wire breaks after the fence has been erected, no more than 2 field splices per strand shall be permitted between brace assemblies.

Wires shall be placed on the side of the post away from the highway except on the inside of curves where they shall be placed on the highway side of the post so the wire pulls against the posts.

Staples shall be driven diagonally to the grain of the wood and shall be driven 3/4 of their length into the wood leaving room for the wire to move.

Wire shall be fastened to steel posts with wire clamps or fasteners designed for use with the posts.

2. **Chain Link Fence.** Fabric shall be placed on one side of the posts for a continuous run of fence. Fabric shall not be stretched around corner posts or past brace posts but shall be attached to each brace, gate, and corner post by stretcher bars threaded through the loops of the fabric and fastened to the posts with bands.

Splices in the fabric shall be made by weaving in a pre-bent wire of the same kind as that in the fabric.

- E. **Gates.** Gates shall be constructed and located as shown in the Contract.

- F. **Resetting Fences.** Existing fences shall be removed so the materials can be reset in the same condition as when removed. Unused portions of the salvaged fence shall be stockpiled at designated locations. New material for resetting the fence shall include staples or other fasteners. If any new posts, braces, or wire are required (as determined by the Engineer) payment for those new materials will be as provided under Basis of Payment. Installation shall meet Section 752.03 D.

752.04 METHOD OF MEASUREMENT.

New and reset fence will be measured by the Linear Foot. Measurement will be along the top of the fence from outside to outside of end posts for each continuous run of

fence. Additional wire or fabric at depressions will be measured as additional fence and added to the pay quantity.

Gates, corner assemblies, and double brace assemblies will be measured as completed units of the size and type specified.

752.05 BASIS OF PAYMENT.

The linear feet of fence reset, measured as provided, will be paid for at the Contract Unit Price bid for "Reset Existing Fence." This price shall be considered full compensation for clearing, for removing the existing fence, and for resetting the fence according to this Specification. It shall include the cost of any staples or other fasteners required. Payment for any new posts, braces, or wire furnished as directed by the Engineer shall be the invoice cost of the material, plus tax, plus the transportation charges to which shall be added 25% to cover all other costs and shall be in addition to the price bid per Linear Foot for "Reset Existing Fence."

Payment will be made at Contract Unit Prices for the following:

Pay Item	Pay Unit
____ Strand Barbed Wire Fence	Linear Foot
Woven Wire Fence	Linear Foot
Chain Link Fence	Linear Foot
Vehicle Gate	Each
Pedestrian Gate	Each
Corner Assembly	Each
Double Brace Assembly	Each
Reset Existing Fence	Linear Foot

This payment will be full compensation for all labor, equipment, and materials necessary to complete the work.

SECTION 754 HIGHWAY SIGNS

754.01 DESCRIPTION.

This work item consists of furnishing, fabricating, and installing highway signs, delineators, and supporting structures.

754.02 MATERIALS.

- A. **General.** All materials furnished and used in this work shall be new, and shall meet the Plans, the Standard Drawings, Section 894 of the Standard Specifications, and the following requirements: